THE

MEDICAL AND SURGICAL REPORTER.

No. 1212.] PHILADELPHIA, MAY 22, 1880. [Vol. XLII.—No. 21.

Original Department.

Lecture.

LEAD POISONING.

A Lecture Delivered at the Philadelphia Hospital, November 12th, 1879,

BY DR. WM. PEPPER,

One of the Physicians to the Hospital, and Professor of Clinical Medicine in the University of Pennsylvania.

Gentlemen:—To-day I wish to ask your careful attention to this interesting case. We have here a girl, 22 years old, single, and who has been engaged as a chambermaid. She was admitted to the hospital some time ago, and has a somewhat uncertain history, but we may exclude entirely any suspicion of syphilis. It appears, from her history, that for a long time, dating back more than two years, she has been in the habit of employing, as a cosmetic, carbonate of lead, or white lead. She applied it every day, simply rubbing it over the face. She first noticed that her arms were becoming weak. She was admitted to the hospital with a double wrist drop. At the end of four months she had recovered sufficiently to leave the hospital, the extensors of the forearm acting normally. For two months after leaving she continued well, but at this time, after being exposed to cold and damp, she suffered from a severe attack of neuralgic pain in the stomach. She says that she has not used the lead since her first attack. Three weeks after the attack of colic she noticed tingling pains in the arms, and the arms grew weaker and weaker, until, at last, she again had a double wrist drop.

When she came into the hospital this last time we found extreme constipation, marked double wrist drop, failure of power in the arms, and in addition to this, a blue line at the insertion of the teeth, but without any cerebral symptoms, no mental disturbance, nor pain about the head. She has had several attacks of colic.

Leaving the history, let us study her present condition. All the time that she has been in the hospital her mental condition has been good, nor has there been any disturbance of the cranial nerves. Her tongue is perfectly clean. The bowels are now regular. Examining the teeth, I find them very much discolored, either from want of cleanliness or stained by something that has been taken. The gums are slightly fungous and swollen, and have receded considerably from the neck of the teeth; this is more marked on the upper jaw. There is an imperfectly developed blueish-red line at the junction of the gum with the teeth, more especially opposite the canines and premolars of both sides, but most marked on the left side of the upper jaw. This blue line is very characteristic.

Examining her arms, you see that she has power over her biceps, and is able to flex the forearm upon the arm, and also over the triceps, extending the forearm. She does not seem to have any power over the deltoid, to raise the arm over the head. Now, let us at once see whether this is due to a loss of power in the muscle or to adhesions in the joint. Moving the arm in different directions, it seems to move freely in the glenoid cavity, but you see that this causes her intense pain. I desire you to notice this extreme sensitiveness, which has been a marked feature throughout the attack. You will observe, then, that there is great loss of power in the deltoid and the scapular group of muscles.

When we come to study this more carefully we find that on both sides the deltoid muscles are considerably wasted. The atrophy is more marked upon the left than upon the right side. She has good power of pronation and supination. The flexors of the hand upon the forearm work well. The extensors of the fingers and of the hand upon the forearm are, on the left side, entirely paralyzed, but on the right the paralysis is not so great. We have, then, great pain on moving the arm, but no adhesion in the joint, marked loss of power of the wrist and arm, with retention of power in the flexors. The paralysis of the extensors of the right hand is not so great as on the left side, for she can raise her right hand to the horizontal position. The paralysis was complete on this side when she came in. When I press upon the trunks of the nerves in the arm, she complains of severe pain. This same tenderness has extended to a considerable degree over the chest. There is no weakness or pain in the legs. The heart's action is rapid, but free from murmur. Here, then, is quite a complicated case, presenting some very marked conditions for our consideration and treatment, and we must try to arrive at a precise knowledge of its course and development.

We have here a symmetrical involvement of the nerves of the arms. This evidently does not come from any cerebral or spinal lesion. All the functions of the brain and cranial nerves are preserved. The loss of power and tenderness do not extend below the lower border of the ribs, the lower part of the abdomen and legs being entirely free from any evidence of nerve trouble. We see that the trouble is connected with the brachial plexus of each side. If we look at the distribution of the nerves forming the brachial plexus, we will find that only some of them are here involved, particularly the circumflex and branches of the musculo-spiral; but in addition to this, we find that evidently some of the sensory nerves are involved, as is shown by this extreme hyperæsthesia of the skin and by the soreness on pressure. This, although more marked over the nerve trunks, is not limited to these situations. This cutaneous hyperæsthesia is particularly marked over the distribution of the musculo-cutaneous nerve. The muscles that control the extension of the hands have been completely paralyzed, and we also find that the bodies of the muscles are almost completely atrophied. We have, then, to deal with a neuritis of both brachial plexuses, affecting not only the motor branches, but also the sensory branches.

Before going on to study the exact condition of the muscles, we must try to find out what has been the cause of this neuritis. Last week I showed you a case of neuritis resulting from traumatic causes. Again, syphilis is one of the most fruitful causes of neuritis affecting certain nerves. So common a cause is it, that, when you have a lesion singling out certain nerves, you must always investigate the history for syphilis. In this case we may exclude it. Another frequent cause is rheumatic inflammation, which, as we all know, affects the fibrous tissues all over the body, and it frequently affects the fibrous sheaves of the nerves, giving rise to marked neuritis. The history of this case goes to show that there has been no other rheumatic manifestations, and the case does not seem to be connected with anything that would give rise to rheumatism. Another very common cause of neuritis affecting certain nerve trunks, is poisoning from certain minerals, and especially from the absorption of an excessive quantity of lead into the system. Your attention will have been already directed to this case as one of lead-poisoning. Let us, then, carefully study it, and see if this is its origin.

The absorption of lead may take place from any surface—from the mucous membrane of the respiratory passages, by the inhalation of vapor of lead or of dust containing particles of lead; from the mucous membrane of the stomach, by being ingested in drinking water or food, or when taken as a medicine; from any of the other mucous surfaces, as those of the rectum and vagina, when lead is administered in suppositories; from the skin, when lead ointments are applied to the skin for a long time, or, as in this case, when it is applied in the form of a powder.

The symptoms of lead poisoning are very extraordinary, and would almost seem, at first sight, contradictory. Perhaps the most common and striking result of lead poisoning is lead colic, a violent, paroxysmal, painful affection of the abdominal nerves, the pain being seated at or about the umbilicus, and of an intense, twisting, griping and binding character. This pain is usually relieved by firm pressure, so that the patient will often be found pressing upon the painful part, or leaning over a chair with the back pressing firmly against the abdomen. It does not seem, therefore, that the pain is caused by inflammation. While there is this intense pain, evidently of a neuralgic character, there is also marked evidence of paralysis of the muscle of the bowels, so that obstinate constipation is invariably present. We usually find vomiting also present. Where we meet with a case having

these symptoms, with no evidence of indigestible matters having been taken, or of the passage of gall stones or of renal calculi, and the patient had been exposed to the action of lead, they would be very significant of lead poisoning. In other words, where you had a history of constipation, colic and vomiting, without any jaundice, without blood in the urine, and without any disturbance of digestion, you would strongly suspect lead poisoning.

In addition to these attacks of colic, we have other evidences of the absorption of lead. One of the most marked is the appearance on the gum, particularly that of the upper jaw, at its junction with the teeth, of a blue line. This line, from the fact that it was first pointed out by Burton, of Leeds, is sometimes called Burton's blue line. It is an important diagnostic lesion when present. In some cases it is absent. There are other conditions of the system in which a similar line appears. In certain of the irritative stages of phthisis, a reddish line, differing in hue from the lead line, may appear upon the gum. These have been mistaken for the lead line. A few years ago, I demonstrated that, in nitrate of silver poisoning, a line scarcely distinguishable from the lead line appears. In the last two cases it is found that the discoloration depends upon the deposit of salts of lead or silver, formed by the action of the gases and acids derived from the decomposition of the juices and particles of food retained in the mouth. These salts, deposited upon the surface of the gum, gradually enter into the epithelial cells, so that by cutting out a piece of the mucous membrane, hardening it and examining it under the microscope, I have been able to show that the deposit enters into its deeper layers. It is possible that other substances may produce a similar line on the gums, but where we have a suspicion of lead poisoning, it is an important evidence. This girl has the blue line.

Going further, lead poisoning shows itself, in the next place, by a very strange selective affinity for certain nerve trunks and certain muscles, and evidently, on being absorbed, it is deposited in the muscular substance and the extremities of the nerve filaments of these parts. The first muscles involved are almost invariably the extensor muscles of the forearm. In consequence of the paralysis of these muscles, we have the characteristic symptom of wrist drop. From the fact that this affection occurs frequently in painters, it was formerly believed that it affected these muscles because they were used more than the other muscles. This is not the reason, for we find that it affects the left side as well as the right, and that it makes no difference what the occupation is, nor how the poison is absorbed. It is not only the extensors of the hand that are affected. About ten years ago there was a remarkable case of long continued lead poisoning under my care, which finally ended in death. The patient was paralyzed from the shoulders downward. After death I extracted lead from every portion of that patient's body. The lead, then, has an especial affinity for the muscles named, but when the saturation is extreme it will involve other muscles and other nerves.

When we come to consider the condition of the arm in lead palsy, we usually find that it is a painless affection. We do not find that it is due to a distinct neuritis, but that it is probably owing to the sedative influence of the lead upon the muscles and nerves. This is not always the case, for not only may we have palsy, but we may also have neuralgia depending upon lead poisoning. I have seen severe neuralgia of the cranial nerves, of the sciatic nerve, and of the brachial plexus, caused by and dependent upon lead poisoning. This double action, affecting the motor nerve, producing palsy, and the sensory nerves, producing neuralgia, is a singular and somewhat contradictory fact. We have seen an example of this action in the colic, where, in connection with the severe neuralgia of the nerves of the bowels, we have paralysis of its muscles.

It is evident that in this case we have a neuritis, as is shown by the marked tenderness over the nerve trunks, the tingling pain and the intense cutaneous hyperæsthesia. The question now arises whether or not this neuritis is dependent upon the action of the lead. We have here a history of long continued use of carbonate of lead, an unmistakable history of lead colic, with intense abdominal pain, vomiting and constipation; we have the blue line upon the gums; and lastly we have recurrent attacks of wrist drop. Under these circumstances we must regard her system as saturated with lead, and we must ascribe most of the symptoms to the action of the poison; but whether or not the patient has also contracted a double neuritis, from cold, is open to discussion; but it appears to me that where we have this complete history of lead poisoning, it is more reasonable to explain the sensory phenomena as due to the lead, than to refer them to the exposure. This case well illustrates the poisonous nature of this substance.

Looking at the muscles of the arm, we find that they have not only been paralyzed, but also

that their nutrition has been seriously interfered with. In the first place, as regards the action of the muscle toward electricity, after lead poisoning. The power of contracting under electrical stimulus is preserved for a short time after the muscle is paralyzed; but unless proper treatment is instituted the power of responding is quickly lost. I am now using a pretty strong current on the muscles of this left arm, but I obtain very feeble twitches. The muscles on the right side contract better, but their power is also much impaired. The extensors of the thumb act better than the common extensor of the fingers. The flexors contract powerfully. Soon after the power of responding to the Faradaic current disappears, the nutrition of the muscle suffers to a marked degree, and the muscle rapidly wastes, so that in prolonged and bad cases of lead poisoning the body of the muscle may entirely disappear. We have, then, not only the loss of power, but also the marked change in nutrition, showing the baneful effects of the poison upon the nerves and the various elements of the muscle. There is rarely any loss of sensibility.

Having, then, arrived at the diagnosis of lead poisoning, what is to be our treatment? The first part of the treatment should, of course, be the eliminative treatment. Our object is to rid the system of that lead which is in the alimentary canal and that which is in the tissues. In regard to the first, if the patient has been exposed to the poison just before coming under treatment, so that we have reason to believe that there is still more lead in the alimentary canal, we should give a purge of sulphate of magnesia and dilute sulphuric acid. This treatment should be kept up, in lessened doses, keeping the bowels in a soluble condition, for at least one week; but suppose we meet with a case, as here, where the patient has not used lead by the mouth; in such a case the purging treatment is not necessary. We must resort to a treatment that will stimulate the power of the system to absorb the lead, and will also get the lead in a condition to be absorbed. For this purpose no remedy is better than the iodide of potassium; with this should be given saline mineral water. It is on account of the diuretic and depurative action of these saline solutions, which also usually contain iodine and bromine, that certain mineral springs have acquired a reputation in the cure of lead palsy. The iodide of potassium should be given in pretty full doses; five grains, four times a day, continued for a long time, will, I think, usually remove the trouble. With this we should also use large quantities of saline solutions.

Now mark that this case shows us, in a very instructive way, how lead may be stored up in the system and give rise to repeated attacks of poisoning. How else could it be, when this girl came into the hospital with a characteristic attack of lead palsy and colic, and by treatment with the iodide of potassium the palsy was cured, and never coming in contact with lead in such a way that it could be absorbed, we find the symptoms recurring in even a more serious form. Undoubtedly, this new development of the symptoms is due to the absorption of lead from the tissues. I can explain it in no other way, and although this is a very rare occurrence, I see no reason why it should not take place. This patient should again be placed upon the eliminative treatment. The diet should be of a nutritious character, and the bowels should be kept soluble.

In the treatment of an attack of colic, the pain must be subdued by the hypodermic use of morphia, the administration of chlorodyne or the use of ether. But we have even more important questions to settle than the relief of the colic, and these concern the muscles and the restoration of their power. As soon as we notice the slightest failure of power, we should commence the use of rubbing, kneading, and the application of Faradaic electricity to the affected muscles, and endeavor by every means in our power to diminish the paralysis and restore the nutrition of the part. In addition to this treatment, there is one drug which exercises a positive influence over the power of the muscles. That drug is strychnia. It exercises an unquestionable power in lead palsy, and should be given freely, beginning with gr. $\frac{1}{30}$ and gradually increasing the dose until gr. $\frac{1}{12}$ is taken, giving it cautiously and waiting a few days to see if any toxic symptoms are developed. In some cases you will get better results by injecting the drug directly into the body of the muscle. Strychnia is well borne when given in this way, and seldom causes any local irritation. When given by the mouth it gives almost equally good results.

In this case we have to deal not only with lead palsy, but also with a neuritis, and it is proper that we should direct our treatment to its relief. Over the tender spots I would place a few leeches or a blister, and keep up a continued counter-irritation. In a case which has lasted so long, and where the system is so broken down, I would hesitate to use mercury.

The treatment of this patient for the next thirty days will consist of the use of iodide of potassium in such doses as will not interfere with

digestion, strychnia, rubbing, frictions, Faradaic electricity to the paralyzed parts, counter-irritation over the inflamed nerve trunks, free use of weak saline solutions, generous diet, and encouraging the patient to use the muscles as much as possible.

COMMUNICATIONS.

MINERAL SPRINGS OF SARATOGA.

Résumé of a Paper read before the Albany (N. Y.) County Medical Society,

BY W. O. STILLMAN, M.D.,

Of Saratoga,

Member of the Albany County Medical Society, Fellow of the Albany Academy of Medicine, Member of the American Association for the Advancement of Science, etc.

The first personal knowledge possessed by the white race of these now famous springs was in 1767, when Sir William Johnson, well known in colonial history, was brought thither by the Indians, to test the virtues of the waters. To the aborigines they were known since a very remote period, for it is said that the High Rock Spring was familiar to the Iroquois Indians at the time of Jacques Cartier's visit to the St. Lawrence, in 1535. The geological formation of this celebrated fountain indicates an extreme antiquity, certainly extending back thousands of years, even beyond the dim traditions of the red man, when its only patrons were the wild beasts that prowled through the primeval forest.

The numerous springs now known were discovered subsequently, at varying intervals, either by accident or exploration, and were mostly found many years ago. The Congress was found in 1792; the Old Red Spring, the Columbian and Washington about the same time. The Ten Springs were discovered in 1814; the Pavilion in 1836, and the Empire in 1846. The Kathom, one of the best and most popular, was accidentally discovered in 1868. One mile and a half south of the village of Saratoga Springs is situated the remarkable group of geysers, which have proved a new source of interest in the study of American mineral waters. They were reached by boring to a depth of from 130 to 300 feet, and spout continuously, with undiminished force, to a height of from 25 to 80 or 100 feet. They were found during or since 1870, together with the Vichy, a fine alkaline water, situated in the same locality.

BIBLIOGRAPHY OF THE SPRINGS.

It is a matter of some surprise to find how little, in the vast quantity that has been written about these well known waters, is of any real value or possesses scientific merit. The first physician to settle in Saratoga was Dr. Blakesley, in 1789, but he does not appear to have written anything. Dr. Constable, of Schenectady, in 1770, also examined the waters, and with like result. The first publication of which I can find record was a letter to Dr. Joshua Fisher, of Boston, written by a regimental surgeon, named Samuel Tenney, after a visit made in 1783, which was published in the Memoirs of the American Academy of Arts and Sciences, Vol. II. Part I, 1793. The venerable Samuel L. Mitchell, LL.D., also records a visit to the springs in 1787, and investigations with reference to the escaping gas, which he denominated "fixed air."

The first really scientific examination of the waters was published in 1793, in a work entitled "A Dissertation on the Mineral Waters of Saratoga," by Valentine Seaman, M.D., a then noted physician, and one of the surgeons of the New York Hospital. His investigations were, however, almost entirely confined to one spring, the High Rock. From that time until Dr. Steel wrote his first observations on the mineral waters of Saratoga and Ballston, in 1817, there does not appear to have been anything published. In 1829, it is said, Dr. Tristam wrote concerning the waters, and demonstrated the presence of iron in them. Dr. Steel had done this previously. To Dr. A. A. Hayes, of New Haven, is due the credit of having first shown them to contain bromine and potash, which he announced in the *American Journal of Science*, July, 1830. Dr. Steel discovered the existence of iodine in 1828. In 1831 the first and only book possessing marked original merit, devoted to the springs of Saratoga, was issued. It was entitled "Steel's Analysis," and was the result of prolonged observation and patient and careful experimentation. A second edition of the book was issued in 1838, after a partial revision by its author, who died the same year. The same work has been still further revised and reissued by the late Dr. Perry, of Saratoga. Many communications to learned societies have been made concerning these waters, although but little has been contributed to the general fund of knowledge relating to their properties. A chapter in Moorman's "Mineral Springs of North America" is devoted to their consideration, as well as an occasional space in similar volumes.

SOURCE OF THE SPRINGS.

Many theories are extant concerning the origin of these springs. The one now generally ac-

cepted is, I believe, that they are produced by the percolation of the water through the porous soil and rock, from the adjacent water sheds to the valley, where a dislocation of the rocks is known to occur, which allows it to come to th surface. This fault, or rupture of the earth's crust, affects a large number of strata; the break amounting to some 500 or 600 feet. The upheaval was accomplished slowly; the inequalities being completely planed down by glacial action. To the north and west there is a long sloping surface, dipping southward and toward the break. This is composed of porous Potsdam sandstone and calciferous sandstone, resting on a bed of Laurentian gneiss, which is nearly impenetrable to water. All the waters falling on this long slope rapidly gravitate through the porous sandstones and reach the break. There meeting a comparatively impervious wall of slates and Trenton limestone, they are forced to the surface, finding exit through the fault. There are many interesting corroborations of this condition and relation of the various strata.

HOW THEIR PROPERTIES ARE ACQUIRED.

By virtue of its solvent power water takes up a portion of the constituents of the channels through which it passes. It does not merely hold them in suspension, but they are completely dissolved, and the water is crystalline, clear and sparkling. The salts dissolved are principally chlorides and carbonates. The first are taken up by virtue of their comparatively easy solubility, and the latter in the form of bicarbonates, being held in solution by the carbonic acid which is forced into the water under pressure. There is also a small proportion of bromides and iodide of soda, and a trace of borax. In addition, in the sulphurous waters are found sulphates and sulphuretted hydrogen. The formation of the insoluble carbonates, as soon as the carbonic acid gas escapes, on exposure to the air, has produced the deposit at the High Rock spring, which is composed of 95 per cent. of carbonate of lime.

CLASSIFICATION OF THE SPRINGS.

These mineral waters have never, to my knowledge, been classified and assigned their therapeutic places before. And without attempting, on our present knowledge, to discuss whether a classification be a needless refinement, more theoretical than practical, the method of division will be presented. A mixed arrangement, based upon chemical composition and medicinal action, presents certain advantages with mineral waters, from their complex character, not possessed by either a strictly chemical or therapeutical classification. And while I have prepared two, a strictly chemical and a mixed one, the latter alone will be presented. The springs are divided into five varieties:—

1. Mineral Cathartic Waters.
2. Alterative and Diuretic Waters.
3. Muriated Chalybeate Waters.
4. Alkaline Muriated Waters.
5. Sulphurous and Sulphuretted Waters.

In connection with this classification, I give the table of analysis of seventeen of the principal springs (not including three sulphurous springs, whose chief constituents are merely mentioned), each in its appropriate division. Excluding the last named exceptions, they present most of the same ingredients in vastly varying proportions. It is true of them, as has been said by a distinguished foreign chemist of the springs of Europe, that the detection of almost every known element in mineral waters seems to depend only upon the delicacy of chemical manipulation. In some of the springs the cathartic principle is almost lacking, as in the Red Spring, Vichy or Seltzer. Again, the cathartic is strong, but the alkaline very weak, as in the Hathom; or, the alkaline predominates over all others, as in the Vichy. In some the iron is scarcely traceable; in others, as the Columbian and Putnam, it is so strong that it has to be taken with great care, lest it produce violent headaches. The sulphurous waters introduce still another element, differing from any which an ordinary analysis discloses in the other springs. In the first and second varieties the distinction is almost solely due to the varying quantities of the constituents; the second not having sufficient laxative properties to be termed a cathartic, operating, therefore, principally as a diuretic, and in some instances possessing valuable additional alterative factors. Perhaps it is to these half-guessed-at elements, or others yet unknown, that some of their marvelous medical excellence is due. The invaluable bromine was first discovered in this country in a mineral spring.

There is not room in the limits of this article for reference to the physical appearance and properties of the waters.

I. MURIATED CATHARTIC WATERS.

Most Valuable Springs.—Hathom, Geyser, Congress, Excelsior, Union, and Champion. They are named in the order of their greatest cathartic strength, with the exception of the last, which is the strongest, but crude and unpleasant to take. The milder waters are frequently more

useful and better borne than those with a stronger impregnation. The consideration of the constituents, and their *modus operandi*, will have to be omitted in this and the succeeding divisions, through lack of space, for the more practical department of

THERAPEUTICS.

Gastro-Intestinal Affections.—In no diseases of this class are the waters more used, or their use of more value, than in constipation. They may be taken so as to produce a gentle, natural movement, or violent catharsis. When properly used—that is, not excessively, or at improper times—they are entirely free from danger, and do not cause griping or any disagreeable symptoms. Moreover, instead of debility and languor after a movement, there is usually a feeling of vigor and refreshment. On the contrary, when improperly used, they may produce severe colic and diarrhœa, with other untoward effects. Their use may be continued for years, with gradually diminished quantity, usually affording the most satisfactory results, with a general freedom from biliousness or tendency to serious indisposition. It is undoubtedly due to a gentle cholagogue action that this long adaptation is found practicable, for the stools retain a perfectly natural character. The bottled waters are quite as useful as when fresh from the spring, and produce quite as good results. In hemorrhoids, occurring as a result of constipation, sedentary habits, hot rooms and stimulating diet, the gentle aperient action is frequently found serviceable. It is difficult for piles to perpetuate themselves if the bowels are kept well regulated. In simple abdominal plethora, frequently found in good livers, when the liver, spleen and mesentery are distended with sluggish-moving blood, and the abdominal vessels are likewise in an engorged condition, the action of the mineral waters afford a prompt and grateful relief. Its action is peculiarly happy in those who are commonly termed "free livers," and in these cases the alkaline water is preferable, as is also the case with those of sedentary habits. Thus, with free livers the alkali tends to produce oxidation and diminution of bulk; with sedants, who are almost always disturbed by acidity, it corrects that fault. In such cases the Geyser offers some advantages over the other cathartic waters, as it contains a large amount of bicarbonate of sodium. This neutralizes irritating acid secretions generally, and, to a certain extent, also relieves certain morbid nervous phenomena, promoting sleep and tranquillity. The same quality renders it valuable in nervous and acid diarrhœa.

In dyspepsia and indigestion of various kinds they have been found useful. They first wash out of the system the effete products of the disintegration of tissue, and hasten the body metamorphosis by making a way of exit for the detritus. Next, the action of various of its constituents is to quicken the change of tissue by increasing oxidation, thus creating a demand. The salines accomplish the same purpose by changing the density of the blood, and so altering the relations of the asmotic action going on between the blood vessels and the inter-vascular spaces.

Again, the carbonic acid offers a refreshing stimulus to the mucous membrane of the stomach, and gives it tone. There is a special action also going on, which will be taken up under the head of Alkaline Muriated Waters. The forms of dyspepsia which have received the most benefit are those attended with decomposition of food in the stomach, causing flatulence, acidity and pain, and either diarrhœas, as in children, or constipation, as in adults. In heartburn or acidity they are useful, though, of course, only palliative, other measures being better adapted to afford permanent relief, unless, indeed, the acidity be removed by curing the indigestion. Congress water has attained considerable reputation for relieving nausea and sea sickness, the carbonic acid being the principal active agent.

Hepatic and Splenic Affections.—Dr. Steel, who carefully and scientifically examined the springs for many years, recorded as his opinion that none were more benefited than the bilious. That the waters possess a true cholagogue action cannot be doubted. They work admirably in most functional, and I have reason to believe, in some organic, affections of the liver. In 1872-3 Rohrig demonstrated that saline cathartics augmented the flow of bile, and the same has long been known in regard to alkalies. Many professional testimonials can be adduced to show their value in acute and chronic hepatic congestion, gastro-hepatic catarrh and jaundice, biliary calculi, and some forms of enlargement and cirrhosis. They are also advocated in fatty degeneration of the liver, and malarial enlargement of the spleen.

Except for relieving acid urine, etc., and irritability of the bladder, their efficacy in nephritic and cystic affections is more than doubtful. This point is further referred to in the part devoted to contra-indications, at the close of the paper.

Cerebro-spinal and Nervous Affections.—In chronic congestions of the brain or cord, or their meninges, attended with constipation, they are often of immediate service. They relieve the

blood pressure, by draining off the superabundant serum, without sacrificing the more vital elements of the blood, or exerting an irritating, heat-evolving influence. The antipyretic action of the saline evacuants has long rendered them essential in the treatment of inflammatory and congestive conditions. Cases of neurasthenia, or nervous debility, accompanied or not accompanied with hypochondriasis, have received much benefit, as also neuralgia, or ordinary and sick headaches, through a general sedative influence and relief of cerebral circulatory tension.

Constitutional and Miscellaneous Affections.—As far back as the venerable traditions of the springs extend, they had a reputation among the aborigines for the cure of rheumatism. Later experience has confirmed this belief. In gout, too, more recently, the waters, especially the lithiated, have achieved some success. The Hathom is far more strongly impregnated with the bicarbonate of lithium than any of the others, which recommends it for use in this affection. In rheumatism, however, the Geyser is far better, from the greater relative proportion of the alkaline elements. Springs of this class have also secured a name in the treatment of cutaneous diseases, scrofula and rickets, obesity, hypnosis and anæmia, and general debility. In most instances, however, some of the others will perhaps be found quite as useful. In general debility, and such as are associated with slow convalescence, they are valuable, for it must not be forgotten that they are food, as well as medicine, and offer nearly all the constituents of the body, in some instances, as the Congress, bearing a striking resemblance to the constitution of the blood. Perhaps no water is more useful than the last named, in general weakness and slow convalescence, combined, when necessary, with a course at the ferruginous springs. As a prophylactic they possess value, especially in warm climates, as a preventive of dysenteries and gastric and bilious fevers.

Administration.—Dose of Hathom or Geyser is from one to three or more glasses. The Congress and Excelsior, or Union, are weaker, and require more. The Champion is stronger, but from its crudeness, not especially recommended. The quantity can usually be diminished after taking some time. A drachm or two of Epsom salts, or a dose of blue pill, with the first draught, is sometimes desirable, to secure a prompt and satisfactory action. The time to take the cathartic waters is always before breakfast, preferably half an hour or more before eating.

II. ALTERATIVE AND DIURETIC WATERS.

Most Valuable Springs.—Red Star, Empire, High Rock. Crystal, and many of the others, especially those containing iron.

Constituents and Modus Operandi.—The therapeutics of this class of waters is obvious.

Dietetic and Morbid Systemic Conditions.—The springs have attained considerable reputation in the treatment of scrofula and affections associated with it. In combination with the iron waters the best results are secured, although some, as the Red Spring, have, single-handed, achieved remarkable triumphs. This spring may be compared to the wonderful Carlsbad, of Europe. Both springs have performed marvelous cures, and are comparatively weak waters; nor can their virtues be ascribed to any particular ingredient. They are likewise used in much the same class of cases. * * * In poverty of the blood, when its composition is much altered, as in anæmia, hypnosis, etc., the waters may do much good by supplying the necessary constituents. Likewise in rickets, *mollites ossium*, and other lime-starved subjects, as in some residents of cities, they are exceedingly useful. The great difficulty in introducing lime salts into the system has been their insolubility, which prevented assimilation. In these waters, which are loaded with the bicarbonate, a perfect state of solution is presented, which is soothing and grateful to the most delicate stomach. In biliousness and icteric troubles the more operative waters recommend themselves. The alterative waters are mildly cholagogue, and in sufficient doses purgative, but large quantities are required, and they are not as well adapted to these complaints as the active cathartics. Likewise in rheumatism, the more alkaline waters are usually best, as the Geyser or Vichy; while in gout their efficiency is doubtful. The Star and High Rock springs are among the best of the alterative waters.

Cutaneous Affections have long been treated at certain of these springs; frequently with great benefit. It is questionable whether they have any value in parasitic affections, but in that other class, largely dependent upon perversion of the nutrition of the skin, in which an alterative action is desirable and a change in the condition of the tissues necessary, these answer the purpose finely. Thus, in eczema, they have accomplished many cures, and have proven valuable in psoriasis, pityriasis, herpes, lichen, impetigo, and acne, etc.; and have long been popular in festering sores, whitloes, boils and felons, as well as indolent ill-conditioned ulcers. In the

latter trouble Dr. Steel recommended them highly, and their depurant action in some of the others is very marked. Mineral baths are an absolute necessity in conjunction with the internal administration of the waters, in testing their value in these diseases. The Red Spring, Star, High Rock and Empire, are especially useful in these disorders.

Inflamed Mucous Surfaces.—As a sedative blenorrhetic these waters have often shown their usefulness. They operate in at least two ways: by liquefying the secretions and cleansing the surface, and by counteracting acidity and destroying irritating influences. There may also be additional special action in the various salts, upon the mucous glands as they are being excreted. This action in the relief of inflamed mucous membranes has rendered them of signal effect in catarrh of the stomach and gall ducts—a form of dyspepsia particularly troublesome and obstinate. * * They are likewise beneficial in catarrh of the intestines, vagina and bladder, and I have seen the Red Spring of marked benefit in ophthalmia. Their curative and alleviating influence is especially noticeable in vesical irritation, for which they have long been used with salutary results.

Miscellaneous Affections.—In calculi and gravel this class of the springs is useful, but not so much so as the more alkaline waters. In general debility and neurasthenia, with their attendant satellites, they often prove of benefit, and are safe to try as a *dernier ressort* in most chronic, non-malignant maladies, which have resisted everything else. In such cases, as a tonic, "alteratives are sometimes better than iron," and work far quicker results.

Administration.—The dose of these waters as an alterative is from a quarter to one glass, varying with the individual, three or four times daily. As a diuretic, from one to two or more glasses, two or three times daily. The dose of the Red Spring may be somewhat larger than that laid down for the others. The iron waters are excellent diuretics. *Time.*—In dyspepsia the waters may be taken fifteen minutes or half an hour before eating; if after, not before two or three hours have elapsed. Bedtime is a good time to take them, as either alterative or diuretic.

(*To be Continued.*)

—At a recent trial at Warsaw, Dr. Wolpert was convicted on the charge of having received money for declaring that certain Jewish conscripts were unfit for service. He was sentenced to a deprivation of all rights and a six years' exile in Siberia.

Hospital Reports.

JEFFERSON MEDICAL COLLEGE HOSPITAL.

SURGICAL CLINIC BY R. J. LEVIS, M.D.,

Surgeon to the Pennsylvania Hospital and to the Jefferson Medical College Hospital.

Reported by CHARLES R. CRANDALL, M.D.

Ablation of the Tongue.

GENTLEMEN, this patient comes to us suffering from cancer of the tongue, and it seems best that a portion of the organ should be removed. The disease is of six months' standing, and has progressed sufficiently far to cause considerable pain and some impairment of the general health. The cancer has not been examined with the microscope, and we cannot say just what kind it is, but, as a rule, these cancers are epithelioma in variety. I find it seated about in the middle of the tongue, but, if anything, a little to the left. I find the tongue somewhat bound down on the left side, and also see that there has been considerable sloughing of the anterior portion of the organ, which has been going on for about two weeks. I examine the face and neck of this patient, but find no glandular alteration or enlargement. In performing this operation I shall anæsthetize the patient with bromide of ethyl. I do not know that it has ever before been used for an operation of this kind, and we may have some difficulty in employing it, as its effect is transient unless the anæsthetic is continuously applied to the nose and mouth. It will be necessary to keep the patient's mouth uncovered most of the time during the operation, but it will probably work satisfactorily if he is profoundly anæsthetized before the operation is begun. The assistant will note the length of time occupied in the operation and the amount of the anæsthetic used. In performing the operation it will be necessary to draw the tongue well forward, and the instrument to be used for that purpose may be either the ordinary tongue forceps or else the volsella forceps.

After the patient is thoroughly ethylized, which is now being done, I shall draw the tongue forward and then apply the écraseur, which is the instrument I have decided to use for making the excision. As the organ is naturally soft and yielding it will be necessary to first transfix it with acupressure pins, which will also serve to hold the chain of the écraseur in place. As the patient is now ready, I first draw the tongue forward, and I find I can do so with ordinary forceps, without using much force. I now proceed to adjust the chain of the écraseur, and will tighten it rapidly at first, until the parts are well constricted. As soon as the tissues begin to crush under the tension of the chain the turns of the screw are made more slowly. Those sitting near can see the extent of the constriction, and, as the chain is now well imbedded, I remove the pins, as they were required chiefly to hold it in place. I now tighten the chain still more, but let the constriction take place gradually. When the excision is about completed it is always necessary to secure the remaining portion of the tongue, lest it recede far back into the fauces,

owing to the contraction of the hyoglossus muscles. As the excision is now nearly accomplished, I seize hold of the remaining portion and prevent it from receding too far. Excision is now complete, and I take out the mass as it is grasped by the écraseur. The remaining portion is not going to retract much, and the patient will doubtless have very good control of it. In some cases it is necessary to attach a string to the remaining portion, in order to keep it in place. I do not think the patient's articulation will be seriously impaired, for I have, in some cases, removed the tongue almost as far back as the hyoid bone, and yet the person could talk very well.

I do not think there can be much hemorrhage in this case, as the crushing has been done so gradually. The principal dangers from the operation are hemorrhage, œdema of the glottis and erysipelas, which must be managed on general surgical principles. I will now let the patient come from under the influence of the ethyl, and see what the action of the tongue will be. Yes, he has good control over it, and, as I speak loudly to him, rouses sufficiently to clear his mouth of blood. Although five minutes have scarcely elapsed since we stopped the ethyl, the patient is able, as you see, to get off the table without assistance and to walk out of the arena. He does not seem to have experienced any unpleasant effects whatever from it.

I ascertain from the assistant that the operation has lasted nineteen minutes, and that ten fluid drachms of the ethyl have been administered. * * * A few weeks later the patient walked into the clinic room, and was able to articulate quite well. Cicatrization was complete.

Medical Societies.

THE TWELFTH ANNUAL SESSION OF THE TEXAS STATE MEDICAL ASSOCIATION,

Held at Brenham, Washington County, beginning on Tuesday, April 6, 1880.

There being no quorum present in the forenoon, the session was opened at 2 P.M., in the Opera House, by the President, Dr. John H. Pope, of Marshall, Harrison county, and about fifty members answered to roll call. Dr. W. A. East, Secretary, and Dr. J. Larendon, Treasurer.

Before proceeding to business, prayer was offered by Rev. W. B. Riggs.

Dr. J. T. Norris, of Brenham, chairman of the Committee of Arrangements, made a handsome address of welcome to the members of the Association, which was replied to in a becoming manner by the President. In his address, Dr. Norris stated that the Washington County Medical Society was the first to propose and mature plans for the organization of the State Medical Association.

Invitations had been extended to various distinguished members of the profession in other States, who failed to attend, and their replies were read by the Secretary.

Quite a number of petitions were presented for membership, and acted on favorably by the appropriate committee.

Dr. A. H. Voorhies, oculist, of Memphis, Tenn., was introduced to the Association by Dr. Ashbel Smith, of Harris county, and on motion by Dr. S. F. Starley, of Corsicana, Dr. Voorhies was elected an honorary member, and responded in a few brief remarks, thanking the Association. A lengthy communication from Dr. J. C. Le Hardy, of Savannah, Ga., on "National Quarantine," was read by the Secretary, and on motion, was referred to the Committee on State Medicine.

Dr. R. B. White, and Dr. S. W. Johnson were received as delegates from the Ellis County Medical Society; Dr. Summers, from the Grayson County Medical Society, and Dr. D. R. Wallace and Dr. Joe. S. Willis, from the Waco Medical Society, representing McLennan county.

A number of communications were read and referred to the proper committees.

Section on Obstetrics.

The time arriving for this Section to report, President Pope yielded the chair to the chairman, Dr. L. J. Russell, of Harrisville, Bell county, who opened the proceedings by reading a lengthy paper "Against the Use of the Ligature and the Bandage on the Funis of New-born Infants." The novel and original ideas of the Doctor were well sustained by sound reason and argument, and he exploded the time-honored practice of applying *any dressings* to the umbilical cord, or any bandage around the child. He contended that there is strong evidence in proof of the unwholesomeness of the dressings, of their injury to the child, by compression, impeding respiration, and producing inguinal hernia; and strong suspicion of inducing trismus. Several members spoke in commendation of the paper, and very few said anything in favor of the bandage. The paper was referred to the Publishing Committee, and a vote of thanks given to Dr. R., for his report.

The report of a case of extra-uterine pregnancy, by Dr. B. H. Bush, physician in attendance upon convicts in the State Penitentiary, at Huntsville, was read by Dr. A. R. Kilpatrick, of Navasota, Grimes county. The patient was aged 45 years, colored, multipara; at the proper time she had labor pains. She denied being pregnant, as she was living *absque marito*. An abscess formed in the iliac fossa was opened, and after a time bones of the fœtus were extruded thence and through another fistulous opening in the perineum. She sunk, from septicæmia, and died. Post-mortem verified the diagnosis. Dr. K. reported, orally, another case, which occurred in November, 1879, in Brazos county, in a negress, multipara, aged 45; her youngest child was then 19 years old. She died Christmas day, undelivered, but there was no post-mortem.

Dr. Bush's paper was referred to the Publishing Committee.

Dr. S. F. Starley, of Corsicana, read a very satisfactory essay on the use of obstetric forceps. He contends that they should be used more than they are, as there is no danger or injury resulting to mother or child, and in a large number of cases of protracted labor they terminate the sufferings of the enfeebled patient and save her from what might be a slow recovery. Some dis-

cussion followed the reading, and objections were made by some to the increasing popularity of their employment, but the majority of speakers favored the more frequent use of the forceps. The Doctor's paper was received and referred to the Publishing Committee.

Dr. J. A. Allen, of Corsicana, chairman of the Committee on Texas Medical College, said there was a defect in the committee, which he prayed to be corrected, and for further time to report. Granted.

The Committees on Necrology, on Practice, and on the Four-States Medical Association, Mississippi, Louisiana, Arkansas and Texas, made no report. Continued. The Committee of Publication, through the Chairman, Dr. C. H. Wilkinson, of Galveston, made a satisfactory report, which was received and adopted, and the thanks of the Association were voted to Dr. Wilkinson for his efficient and economical work. Same committee continued.

The Committee on Prize Essays made no report.

Dr. D. R. Wallace, of Waco, offered a series of resolutions looking to the more perfect organization of the profession of medicine in the counties, states and nations. The resolutions were referred to the Committee of the Whole.

Dr. Ashbel Smith offered the following:—

Resolved, That two gentlemen be appointed to attend the Legislature, at Austin, at its next session, to urge the adoption of such legislation on medical subjects, including public hygiene, as the public good and the interest of the medical profession deserve, and that they receive such compensation for their services as, in the opinion of this Association, shall be deemed reasonable. It was referred to the Section on State Medicine, but afterward amended, by appointing the following Committee, viz., Drs. T. D. Wooten, R. M. Swearingen, J. W. McLaughlin, of Austin; J. H. Pope, of Marshall; and D. R. Wallace, of Waco.

On the second day of the session the subject of quarantine came up for discussion, under the Section on State Medicine and Public Hygiene. Dr. A. R. Kilpatrick, chairman of the Section, read a paper on hygiene, drainage and sewerage; proper sanitary measures in the person, the family, the town and city. He gave a gloomy picture of the condition of Memphis during and immediately after the epidemic of yellow fever.

Drs. Burroughs, of Houston, and Dowell and Heard, of Galveston, spoke on quarantine, but mainly to show where it has failed to protect places from disease.

Dr. Kilpatrick advocated quarantine, and spoke of the great good done by the National Board of Health, in protecting our seaports from disease, in reporting the presence of disease in foreign cities, and warning our people in time to guard against the introduction of infectious diseases, by refusing the entrance of vessels from infected places.

Dr. Kilpatrick's paper was received and referred to the Publishing Committee, and the whole subject of quarantine was finally referred to the same committee.

Dr. Wallace, of Waco, read a lengthy essay on "Crime," taking the penitentiary convicts as his subjects. The paper was ordered to be printed and distributed.

Dr. M. A. Taylor, of Austin, chairman of Committee on Legislation, made a lengthy report on past legislative action, and a committee of five, elsewhere reported, was appointed to urge our cause before the next Legislature.

The Committee on Elections reported the following officers as elected for the next year: Dr. A. R. Kilpatrick, of Navasota, President; Dr. R. M. Swearingen, of Austin, First Vice-President; Dr. E. J. Beall, of Fort Worth, Second Vice-President; and Dr. O. H. Seeds, of Columbia, Third Vice President; Dr. R. H. L. Bibb, of Austin, Secretary (for a term of five years); Dr. J. Larendon, of Houston, reëlected Treasurer. Section on Practice of Medicine, Dr. J. L. Irion, of Montgomery, Montgomery Co., Chairman; on Obstetrics, Dr. J. L. Russell, of Harrisville, Bell Co., Chairman; on Gynecology, Dr. J. F. Y. Paine, of Galveston, Chairman; on Surgery, Dr. B. Powell, of Houston, Chairman; on Ophthalmology and Otology, Dr. W. H. Brown, of Waco, Chairman; on Medical Jurisprudence and Psychology, Dr. E. J. Beall, of Fort Worth, Chairman; on State Medicine and Public Hygiene, Dr. J. H. Pope, of Marshall, Chairman.

As delegates to the American Medical Association at its session in June, in New York, Drs. Ashbel Smith, T. J. Heard, R. M. Swearingen, J. J. Burroughs, S. Eagon, J. M. Ross, J. A. Allen, S. R. Burroughs, J. H. Pope, A. R. Kilpatrick, J. C. Fields, T. M. Blakemore, G. W. Christian, C. W. Truehart, J. F. Y. Paine.

There was quite a spirited discussion on the unfairness of the State and county license tax on physicians, and many spoke in reprobation of it, but no definite action was taken upon it.

Dr. B. Powell, of Houston, offered a resolution, designed to break up the system of contracts between physicians and railroad and other corporations. The President ruled it out of order, as having been decided last year, at the session in Sherman.

Dr. A. J. Summers, of Sherman, read a paper before the Section on Surgery, written by Dr. S. Eagon, on the question, "Should Battey's Operation be Recognized as a Legitimate Measure in Surgical Therapeutics?" The paper was well received and referred to the Committee on Publication.

Dr. R. P. Talley, of Belton, Bell county, reported an interesting case of popliteal aneurism, successfully treated by Esmarch's bandage, digital, genu and hammer-handle compression. The Doctor showed great skill in availing himself of all means within his reach in treating his case, and his ingenuity and impromptu adaptiveness are commendable. The paper was received and referred to the Publishing Committee.

Dr. J. B. Adair, of Bastrop county, read a lengthy article in advocacy of Dr. Long, of Jefferson, Ga., as being entitled to the honor of the discovery of ether as an anæsthetic in surgery. Paper received and referred.

Dr. J. L. Cunningham, of Hempstead, Waller county, reported to the Obstetrical Section the case of a white woman without a uterus, and who enjoyed good health and was twice married. The

pudendum was never supplied with the usual pileous adornment.

Dr. T. M. Blakemore, of San Marcus, reported, orally, a parallel case, except that she never married. Each had poorly developed mammæ.

Dr. Styles, of Independence, Washington county, read the report of a case in practice, of placenta prævia, in a white multipara, in which the woman lingered and died of septicæmia.

Dr. S. R. Burroughs, of Guy's Store, Leon county, read a very interesting article on the question, "What are the post-mortem evidences of virginity, as determined by examination of the uterus and appendages, excluding the external organs of generation?"

On Wednesday night, 7th, Dr. J. H. Pope, the retiring president, delivered the annual address to the Association, and also a large audience of ladies and gentlemen. His theme was "Existence," in which the love of life and pleasure, and the dread of death, were aptly illustrated and portrayed. He believed that life is susceptible of being prolonged by means of hygienic and scientific precautions, and that the disciples of Æsculapius were scientific agents, so to speak, in the cause of protracted longevity. His comparisons and illustrations were grand and sublime, clothed in choice language, and at the same time concise and pointed. The mixed audience listened with eager attention, all seeming to be charmed and highly satisfied with the address.

The newly elected officers were introduced and installed in office on the afternoon of the third day. There was little of any consequence done after that, and the Association adjourned on Friday morning at eleven o'clock, to meet at Waco on the first Tuesday of April 1881. The session was pleasant and harmonious; there was manifestly a warmer and more cordial feeling among members, and an assurance of success and activity hereafter. The papers read evinced reflection and study; everything was prepared in a finished manner, showing a desire to benefit the hearers and secure their hearty approbation. A proposition was made to have the sessions continuously in one city every year, but it was voted down.

Editorial Department.

Periscope.

Treatment of Gonorrhœal Ophthalmia.

George Critchett, F.R.C.S., reports the following interesting case in the *Lancet*, April 3d, 1880:—

Louisa C., aged two and a half years, was brought to me at the Middlesex Hospital on the 15th of May, 1878. Her left eye presented all the appearances of acute gonorrhœal ophthalmia, and the collateral circumstances confirmed this diagnosis, as the child had a profuse yellow discharge from the vagina, with considerable swelling and irritation of the mucous canal. The lids were of a bright red color and much swollen, and so densely infiltrated, that even when the child was placed under the influence of an anæsthetic it was found impossible to separate them so as to ascertain the condition of the cornea. Yellow and rather thick matter was exuding from between the lids.

Judging from past experience, seeing the extreme acuteness and severity of the symptoms, the difficulty in separating the lids or exposing the cornea, and the impossibility of getting any solution into contact with the conjunctival surface, I relinquished all hope of saving the sight. I have never in the course of my experience known such a condition eventuate otherwise than in the total destruction of the eye. Under these circumstances, I determined to adopt a somewhat heroic and novel proceeding, and one that has not, I believe, been published. I passed a small silver director under the upper lid, as far as the edge of the orbit, against which I kept it pressed; and then, with a small, sharp-pointed bistoury, I completely divided the lid, perpendicularly, as far as the margin of the eyebrow. In order more completely to uncover the cornea, I separated the two angles of the divided tarsus, and fixed them with fine sutures to the skin of the eyebrow. The cornea looked steamy, but not ulcerated, and was buried in chemosed conjunctiva. The immediate effect of this proceeding was to diminish the redness and swelling of the lids and conjunctival membrane and completely to expose the surface.

In the subsequent treatment of the case I was materially assisted by the house-surgeon, Mr. Dixon, who carried out my directions with great care, skill and assiduity. A solution of nitrate of silver—thirty grains to one ounce—was painted over the entire surface of the conjunctiva three times daily, the eye was cleansed and syringed with a solution of alum—ten grains to one ounce—and a piece of linen moistened in the solution was kept constantly applied. This plan was continued, with gradual abatement of the symptoms, for a month; a weaker solution was then substituted, and at the end of six weeks from the commencement of the treatment the eye had recovered with a perfectly bright, healthy cornea.

At the termination of another fortnight the child was again placed under the influence of an anæsthetic, when I pared the edges of the divided lids and brought them together with fine sutures. Good union occurred, the deformity is very slight, and the lid perfectly performs its function.

I may add that during the early part of the treatment the other eye was kept carefully closed with strapping, so as to prevent any risk of inoculation.

To some it may seem that this rather novel

proceeding was of too heroic and severe a character, but it at least had the merit of success. Every case of gonorrhœal ophthalmia, the result of direct contagion, that has come either under my care or my observation has been so uniformly attended with loss of the affected eye that I should certainly adopt a similar proceeding on any future occasion, and I beg to commend it to the attention of the profession. It seems to fulfill every indication; it relieves the immediate tension, and the strangulation with which the cornea is threatened; it permits the free escape of the matter, and enables the surgeon to make a thorough use of caustic and astringent remedies; while the slight subsequent scar on the lid is a small price to pay for a rescued eye.

Treatment of Scarlatina in Children.

M. Archambault, of the Hôpital des Enfants Malades, Paris, says, in a lecture on scarlatina, a translation of which appeared in the *Medical Press and Circular*, April 21st, 1880—

There is a certain class of infantile diseases for which it is not at all necessary that the physician should display his skill. Scarlatina is one of these. Put the patient to bed in a well-ventilated chamber, but the windows should not be opened. The temperature of the chamber should not exceed 64°. When the fever falls the temperature may be raised a little, because the patients have tendency to chills. The covering should be no heavier than in health. How long would you leave a patient in bed? Some say that he might get up as soon as the fever fell; others, on the contrary, exact a month or six weeks. Leave him a long while in bed, about three weeks. The statistics of an English doctor, comprising six or seven hundred cases of scarlatina, show that nephritis appeared oftenest from the fourteenth to the eighteenth or twenty-second day. If, then, nephritis is due to cold, as I believe, it will be well to oblige the patients to keep their beds. They might sit up in bed, but care should be taken to put a kerchief around the neck, for secondary sore throats are grave. It would be well also to recommend mittens on the wrists, the carpal articulations being the most subject to the rheumatism which is frequent after this disease. The patients should not go out before the thirty-fifth or fortieth day; but that will depend again on the gravity of the disease. Barthez has told me that he did not know of any case of anasarca after scarlatina since he forced his patients to keep the bed during five or six weeks. As regards the medical treatment, properly so-called, I will not spend much time over it, as I consider that hygienic precautions are the most important. Hot drinks should not be given unless the eruption does not come out properly. Refreshing drinks, such as lemonade, gooseberry wine, etc., are preferable. To aid the eruption I have often given the acetate of ammonia. If the patient is constipated, a little rhubarb or castor oil will suffice. If the nights are restless, a little bromide of potassium I have found of great benefit. The mouth must be washed often, but for the throat, caustics are seldom necessary. Chlorate of potash, or alum gargles will be sufficient. If the patient is too young to gargle, one or two grams of chlorate of potash mixed with five or six grams of white powdered sugar may be given. Ought baths to be ordered in scarlatina? One might order a bath if the fever were very high and the eruption abundant, but in ordinary cases it would be better to dispense with it. This practice is much used in England; it is thought hazardous with us. Sometimes the itching is very great. Some German doctors conceived the idea of rubbing the children with fresh lard, but to this procedure, which is not very clean, I prefer the English method, which is a mixture of glycerine and cold cream. As regards nourishment, it is evident when the fever is high a light diet should be prescribed; when the fever abates a stronger nourishment might be administered, but with caution.

Such is the treatment that will suffice in scarlatina; it is simple, and will not cover you with glory, but it will cure your patients, and will prevent, in the majority of cases, complication. Do not neglect, above all, hygienic precautions, for I say, in closing, there is not a case of scarlatina that ought to be neglected.

Treatment of Smallpox.

Prof. Alonzo Clark, M.D., of New York, says, in a lecture on smallpox, published in the *Medical Record*, May 1st, 1880—

The first great fact you are to remember when you have charge of such a case is, that it is a self-limited disease, and must run a course, and that your business is to keep your patient alive until its natural termination. In very many cases of smallpox that tend to recovery, really very little treatment is required. The general treatment may be almost entirely omitted; and those that do require treatment will require treatment for symptoms. If there is exhaustion, you would use your alcoholics in the same way that you would in typhoid fever. If there were a wide erysipelatous inflammation, you would have the room kept pretty cool, so that the coldness of the air would modify the action of the inflammatory disease. If the patient be restless, if he have the irritative fever, give him opium, to quiet the nerves. If he have suffocative symptoms, you will have to look into the throat, or feel the throat, and ascertain whether there is any œdema glottidis; and if there be, your duty will be to perform the operation suggested by the late Dr. Buck, to scarify the watery tumor upon the top of the larynx with a sharp instrument of some sort, the blade of which is protected by winding something upon it, the point only left open to pass down upon your finger, and make little scratches into the bladder of water that constitutes œdema glottidis. There is no specific. It is not more than five or six years since that it was published to the profession that a certain plant would cause an abortion of the disease, and would cure it in every instance. The more it has been used, I believe, the less it has been found that the statement is true. We do not claim now, at any rate, that there is anything that will cut short the eruption; and the probability is that if you could find anything that would do it, it would do more harm than good. It is a loathsome disease—loathsome in the condition

to which it reduces the patient, and in the effluvia that arises from his body. The only question of much importance in regard to the treatment is, can you produce a condition of the pustules that will not leave cicatrices? I believe that question can be answered affirmatively. But the particular treatment that you will subject these pustules to is of a very variable kind, if you follow the authority of one or another person. If, early in the disease, these vesicles be pricked with the point of a lancet, and kept empty, the cicatrization, it is said, will not occur.

Spermatic Colic.

Under this title, says the *Canada Journal of Medical Science*, for May, 1880, M. Reliquet reports a curious case, occurring in a man twenty-five years of age, in which he had diagnosticated prostatic tubercle, and which presented the following symptoms: Violent pain during coition; painful sensations in the perineum, with frequent desire to urinate while riding in a carriage; frequent and violent emissions from the urethra of a liquid analogous to the spermatic fluid. Rectal examination revealed an inequality of the prostatic lobes, the right lobe presenting a well defined swelling, which was continuous posteriorly with the vesicula seminalis. Pressure with the finger was painful, and induced a desire to urinate. A sound was introduced into the urethra and the tumor compressed between it and the finger. This manœuvre caused the expulsion through the urethra of a grayish mass, resembling vermicelli, and which examination showed to consist of altered spermatozoa and mucus. The spermatic colic, the retention of the semen in the ejaculatory duct, was the cause of all the symptoms. After repeated sounding, and further evacuation of the retained mass, the tumor disappeared and the reflex troubles of micturition were relieved.

The Use of Boracic Acid.

E. P. Atkinson, M.D., writes, in the *Practitioner*, for April, 1880—

Considering the well known antiseptic properties of boracic acid, it is exceedingly curious how little it has been administered as an internal remedy. Its effect in diphtheria, both locally and internally, is very marked, and the following statement by Drs. Cossar Ewart and Malcolm Simpson proves in a pretty conclusive manner the action it has upon the disease germs: "Pieces of membrane which had been brushed with a saturated solution of boracic acid, when placed on the warm stage of the microscope showed the characteristic bacilli; but these were absolutely innocuous, and instead of lengthening into spore-bearing filaments, micrococci, bacterium, termo or torula appeared in their stead. By the use of the acid the disease was shortened, and the other members of the family protected from infection." In the treatment of puerperal fever, combined with sulphuric ether (which is also an antiseptic), and when it has been found necessary a little tincture of opium, it has given more decided beneficial results than anything with which I am acquainted. I feel certain that it ought to hold an important place in the treatment of carbuncular disease—erysipelas, cholera, scarlatina, enteric, typhus and intermittent fever—and, in fact, all those cases which are known to have a septic origin. From what I know of its power in combating the action of disease germs, I cannot help thinking it would materially lessen not only the intensity, but also the duration of the various eruptive fevers. I incline to this belief very strongly; time will quickly show whether it is correct or not. It is but sparingly soluble in cold water; an ounce will only take up about eighteen grains, but a drachm of boiling water will dissolve about five grains. The dose is from five to fifteen grains. It has one particular recommendation, and that is its tastelessness.

Diminution in the Refractive Power of the Eye, in Glycosuria.

Dr. Alcon calls attention, in *El Siglo Medico*, January, 1880, to a case of diabetes in which he observed a symptom hitherto undescribed, namely, a diminution in the refractive power of the eye. The patient was a woman, aged 61, of healthy antecedents, in whom symptoms of glycosuria became developed after an injury. Simultaneously, sight became impaired, and glasses that had hitherto sufficed for reading were now found to be too weak. There was a manifest hypermetropia of 1.25 D, and vision was reduced to one-half. At this period the amount of sugar passed daily amounted to 229.04 grams. At successive visits the amount of sugar was found to be steadily decreasing, and, *pari passu*, the hypermetropia also. Finally, five months after the first examination, it was found that the eyes were once more emmetropic, while every particle of sugar had disappeared from the urine. The author explains the symptoms by an alteration in the index of refraction of the vitreous humor, due to a change in its chemical composition. The vitreous body offers a concave surface to incident rays, and, consequently, its refraction is the exact reverse of that of the cornea and crystalline; therefore, any increase in its refractive power will result in a diminution of the refractive force of the eye as a whole.

A Case of Imperforate Anus Successfully Treated.

Geo. W. King, M.D., of Kempton, Ill., reports the following case in the *Michigan Medical News*, April 26, 1880:—

Sunday, December 1st, 1879, I was called to see a child a few hours old, the midwife in attendance having discovered something wrong with it. Upon examination I found it to be a a case of imperforate anus. Perineum was smooth, and without a trace of the anal aperture. The child, a male, was, with this exception, well developed and in good condition, but seemed to be suffering acutely from the intestinal obstruction. The parents insisting that an attempt must be made to relieve the child, I decided to make an exploratory incision to determine the location and condition of the rectum, if present. After emptying the bladder by pres-

sure above the pubis, I made an incision of about one inch and a half in length in middle line, beginning a little in front of coccyx; then by careful dissection separated the tissues to the depth of one inch, at which point the rectum was found to end in a cul-de sac. The intestine being distended with meconium, I punctured the sac with a trocar, and a free discharge of its contents followed; enlarging the opening by a crucial incision, and clearing the cavity, the next step in the operation consisted in bringing down the bowel and fastening its mucous membrane to the edges of the external wound by means of sutures. This proceeding was accomplished without difficulty; the hemorrhage was free, but easily controlled by torsion and cold compress. The case progressed well, and the union has been rapid. The treatment consisted in keeping the orifice dilated with a plug of oiled cotton, and the introduction of a bougie occasionally.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"Diseases of the Maxillary Sinus," by Edward Borch, M.D., of St. Louis, Mo., is the title of a reprint from the *Indiana Medical Reporter*, April, 1880.

——A reprint from the Philadelphia *Medical Times*, April 10, 1880, contains a contribution to the history of influenza, with a study of a series of cases, by Drs. John Guitéras and J. William White.

——*The Peoria Medical Monthly* is a new journal, published at Peoria, Ill. It is edited by Drs. John Murphy, J. C. Hamilton, and H. Steele, and to judge from the first number, which contains several original articles of considerable interest, besides selections from other journals, it deserves the support of the profession. Subscription price one dollar per annum, in advance.

BOOK NOTICES.

The Utricular Glands of the Uterus, and the Glandular Organ of New Formation which is developed during Pregnancy in the Uterus of the Mammalia, including the Human Species. By Professor Giovanni Battista Ercolani, Permanent Secretary of the Academy of Sciences of Bologna, Corresponding Member of the Academy of Medicine of Paris and Brussels, and of the Gynecological Society of Boston, etc. To which is appended his monograph upon the Unity of the Anatomical Type of the Placenta in all the Mammalia, and the Physiological Unity of the Nutrition of the Fœtus in all the Vertebrates. Also a General Summary and Classification, written expressly for this edition. With a quarto Atlas of fifteen plates, engraved by Bettini, and reproduced by the heliotype process. Translated from the Italian, under the direction of Henry O. Marcy, A.M., M.D., Vice President of the American Medical Association, etc. Boston, Houghton, Osgood & Co., 1880. Cloth, 8vo, pp. 305. Price $5.00.

Dr. Marcy has merited the thanks of the medical profession of America for having reproduced in the English language the valuable observations of Professor Ercolani on the development of the placenta in the mammalia, including the human species. In his introduction, the author tells us that these observations have led him to entirely different conclusions from those which are generally admitted by anatomists and physiologists of the present day. He holds that there is produced in the pregnant uterus of mammals a glandular organ of new formation, whose function it is to secrete a fluid for the nutrition of the fœtus, and that this organ constitutes one of the two fundamental portions of the placenta, the maternal portion, with which the fœtus is brought into intimate relation by the villi of the chorion, which composes the other or fœtal portion of it. These villi penetrate into the glandular organ in order to absorb the fluid which is there secreted, but in no case do the maternal vessels come in contact with those of the fœtus. The author passes in review the investigations made and the opinions held by the most learned and illustrious anatomists of earlier times, together with those of a more recent date, before giving the results of his own researches, and in an appendix he makes such modifications and additions as more recent observations have called for. This he conceived to be a better idea than to revise the work, as it enables the reader to follow him step by step in his investigations. This is a work of rare merit, and the difficult task of translating seems to have been well performed. As, however, many of the American physicians are not Latin scholars, it would, perhaps, have been better had the numerous quotations in that language been rendered into the vernacular as well. The plates in the accompanying atlas are real works of art, and the book, which is printed in large, clear type, on solid paper, and elegantly bound, undoubtedly contains the latest and most correct views on the subject.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year,	$5.00
Half-Yearly Compendium of Med. Science,	2.50
Reporter and Compendium, - - -	7.00
Physician's Daily Pocket Record, - -	1.50
Reporter and Pocket Record, - - -	6.25
Reporter, Comp. and Pocket Record, - -	8.25

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M.D.,
115 South Seventh Street,
PHILADELPHIA, PA.

SOME EARLY SYMPTOMS OF INSANITY.

Few general physicians, as we have heretofore remarked, are awake to the importance of watching for and treating early the symptoms of diseases of the mind. Too often the period in which such diseases may be prevented or successfully treated is allowed to pass by, under the convenient belief that the symptoms are "hysterical," or "nervous," or "sentimental" only. Every medical man who assumes the charge of families should commit to memory and keep in his recollection these words of the distinguished alienist, Dr. DANIEL HACK TUKE: "Attack the first symptoms of mental ill-health by appropriate means, and with at least as much determination as the first threatenings of consumption. Repel the invader before he can plant his foot firmly on your territory." (*Insanity in Ancient and Modern Life*, page 143.)

Such is the variety of manifestations of mental ill-health that it is indeed often confusing to distinguish them, and the difficulty is increased by the delicacy of the inquiry. There are, however, two symptoms so generally present, so obvious, and so significant of more than mere eccentricity or natural "queerness," that we would point them out as specially worthy of attracting attention.

The first of these is a *change in habits*. Whenever the man or woman who has for years been known as tidy becomes slovenly, as penurious becomes lavish, as taciturn becomes talkative, as serious becomes gay, as sedate becomes restless, as loving becomes surly, as confiding becomes suspicious, or the reverse, the gravest fears may be entertained as to their mental condition. Such is the force of habits on life that any material and sudden change in them can hardly take place unless associated with a disturbance of the central mental power itself.

It is hardly possible for the strongest argument applied to the reason to bring about such an alteration, however desirable it may be. The careless man, habitually neglectful of his own interests, unpunctual to his engagements, forgetful of his promises, loose in his dealings, may be, for all that, an excellent man at heart, and earnestly wish to reform his habits. He finds it most difficult to do so, practically, indeed, out of his power; and should he abruptly change in all these respects to what ordinarily would be esteemed much more praiseworthy courses, the suspicion may be justly entertained that it may prove a sign of mental weakness rather than of strength. Sudden conversions, violent reformations, are proverbially of short persistence, and are often signs of diminished rather than increased mental power.

Another most common symptom of the earliest stages of insanity is a condition of mental isolation. The social ties are loosened. This may present itself as an increasing selfishness, an indifference to the comfort of others, compared with the patient's own well being, an excessive care of his health, and coddling about sanitary matters. His conversation becomes distinctly more about himself and his own personal interests than heretofore. They are magnified in his eyes, quite out of proportion, and both his infir-

mities and his capacities occupy his attention more than before. This morbid magnifying of self has been, indeed, a mild mental epidemic, which has afflicted the world at times within the last century.

Frequently associated with it, and a step further in the direction of alienation, is the suspicion of others. This often begins with a diminution of the natural affections, passing into distrust and dislike. Not a few great men in history have suffered under the mania of persecution. Discouraged in their ambitions and brooding over their failures, they attributed the natural results of their actions to a plot to injure them. They saw conspirators in their best friends; and all that they had gained of fame and money but rendered them more wretched in view of the amount they had to lose.

Probably no general symptoms of insanity are more constantly present than these we have mentioned, and for that very reason we have thought it not amiss to bring them to the notice of the readers of this journal, as those for which they should be most on the lookout.

Notes and Comments.

Therapeutical Notes.

COTO BARK IN DIARRHŒA.

Dr. G. B. Grandall writes to the *Therapeutic Gazette*, for January, 1880, that he has found the following formula successful in a case of diarrhœa with tubercular complications:—

℞. Fl. ext. coto bark,
Comp. tr. cardamon, āā ℥ ij
Mucilage acacia,
Sprup, āā ℥ ss
Cinnamon water, q.s. ad ℥ viij. M.

Sig.—Teaspoonful every three hours.

REMEDY IN MUGUET (THRUSH).

Dr. Vivier observes, in *Progrès Med.*, March 27, 1880, that by far the best application in this disease—that of Bazin—has almost fallen into oblivion, which he attributes to the fact that Bazin never published a formula. After numerous trials Dr. Vivier recommends the following, which constitutes a mode of treatment incomparably superior to any other: Distilled water, 25 grams; alcohol, 5 grams; and corrosive sublimate 60 centigrams. The patches of muguet are to be swept over by means of a pencil moistened in this, once, twice, or three times a day, according to the rapidity of the reproduction of the cryptogam. In spite of the poisonous character of the agent, its application is made without danger and always with rapid success, unless the patches are inaccessible by being placed in the phraynx or at the back of the velum. The application has only one inconvenience—that it must be made by the practitioner himself; but the rapidity of the cure amply compensates for this.

Defect of the Pericardium.

Dr. Hans Chiari describes, in the *Wiener Medizinische Wochenschrift*, for April 3d, a case of almost complete deficiency of the parietal pericardium. The subject was a man, aged 46, who had died of cirrhosis of the liver and tubercular peritonitis, with old tuberculosis of the apices of the lungs. No special physical signs had been noticed during life, on the part of the heart, except accentuation of the second sound in the pulmonary artery, which was attributed to the state of the lung. On removing the sternum, the heart was found lying quite free in the left pleural cavity, in immediate contact with the median surface of the left lung. Both lungs were adherent at the apices, and were here the seat of old indurations enclosing cheesy and calcareous masses; elsewhere they were œdematous. The apex of the right lung formed a separate lobe about the size of a hen's egg; and the upper lobe of the left lung was divided into two by a nearly horizontal fissure. The heart, which appeared normal in structure, lay in its normal situation with regard to the thoracic walls. The mediastinal layer of the left parietal pleura was found to the right of the heart, and extended into the right half of the thorax. From its left surface, along with the visceral pleura for the left lung, the visceral pericardium was developed, proceeding forward from the hilus of the left lung. The transition from pleura to pericardium was for the most part direct, without folds. Only at the part where the pleura passed over the vena cava inferior there was a duplicature about three centimetres (1¼ inch) in depth, which, gradually becoming a crescentic fold, could be followed for seven centimetres (2¾ inches) along the posterior circumference of the auricle, as far as the hilus of the left lung. This duplicature contained some adipose tissue. The mediastinal layer of the right parietal pleura was in its usual situation. The mediastinum was only three centimetres wide; it contained a little fat, and the usual structures (aorta, œsophagus, etc.) in their nor-

mal position. The left phrenic nerve alone was abnormal in position; it lay on the outer surface of the pleura, where the mediastinal passed into the parietal portion, crossing the heart obliquely to the diaphragm, into which it passed at an almost right angle. The diaphragm itself appeared quite normal, except that the middle division of the central tendon was somewhat smaller than usual.

Alterations in the Alimentary Tract in Pulmonary Consumption.

Dr. Mazotti states, in the *Bullotino delle Sienze Mediche*, for January, 1880, that in fifty necropsies performed on patients who had died of pulmonary consumption, he found lesions of the alimentary tract in 38; in the remaining 12 no such lesions were present. In 37 of the cases so affected the lesions consisted of ulcers situated either on the tongue, pharynx, stomach, or large or small intestine, but not in the œsophagus or rectum. In all cases, with one exception, the lesions were multiple, ulceration of the tongue, pharynx, or stomach existing simultaneously with ulceration of the intestines. In 12 cases the lesions were confined to the small intestine; in 5 to the large, while in 20 they affected both viscera. The author observes that, in cases where ulceration has been confined to the small intestine, the large has frequently contained solid fecal matter, thereby demonstrating a fact already remarked on by Niemeyer, that ulceration of the small intestines may exist without giving rise to diarrhœa. As a rule, the number and extent of the intestinal ulcerations bore a constant relation to the pulmonary lesions. In the small intestine the ulcers were generally seated in the lower portion of the ileum, although in some cases they were confined to the ileo-cæcal valve, while in others they extended as high as the jejunum, and even duodenum. These ulcers, in the earliest stage, appeared as small white spherical bodies of the size of a pin's head, springing from the mucous membrane. At a later stage they became larger, and the mucous membrane had shrunk away from their summits, thus leaving punctiform ulcers. In some cases the ulcers were situated on Peyer's patches, and were multiple. In the large intestine the lesions were, as a rule, confined to the ascending colon, though, when numerous, they were also found in the cæcum and around the vermiform appendix. The author remarks on the extreme rarity of tubercular granulations in the large intestine as compared with the small. The article extends to a considerable length, an analysis of each case being given, and ample references made to the literature of the subject.

An Improved Method of Applying Antiseptic Vapors.

Prof. Giuseppe Corradi, in *Gazetta Medica Italiana Provincie Venéte*, January, 1880, commences with a review of what he considers the chief advantages and inconveniences of the antiseptic method as at present practiced. Besides the danger of carbolic acid poisoning, which he believes to be always present when large injections of the acid are used, and the irritation of skin frequently produced by the gauze, there is the extreme discomfort caused to the surgeon, whose eyes and throat are irritated by the spray, and who is precluded from the use of such instruments as the galvano-cautery, or the thermo-cautery of Paquelin. To obviate these inconveniences, the author suggests and has practiced a method by which a jet of chemically pure air, impregnated with the fumes of carbolic acid or other volatile disinfectant, can be made to play upon the part to be operated on. This object he accomplishes by means of a fan, giving a continuous blast, the air to supply which is made to pass previously through a diaphragm of wadding. By this means it is deprived of all its "atmospheric dust." The air as it leaves the fan is next conducted into a Wolfe's bottle, one-third filled with pure, anhydrous, carbolic acid. Here it becomes strongly impregnated with the acid, and thence passes into an India-rubber tube with a rose end, which distributes it in the immediate neighborhood of the operation, or, if preferred, exactly over the spot. The author has also made trial of sulphuric acid instead of carbolic, but does not recommend it. By fitting a supplementary pipe to the main tube, he has been able to add the vapor obtained by burning various substances, such as charcoal and benzoin, leaves of uva ursi, tobacco, etc. He has already practiced this method successfully in one capital operation, but would be glad to learn the experiences of any who are able to apply it on a large scale.

The Use of Alcohol.

The *British Medical Journal*, April 10, 1880, states that M. Leven has been hard at work on the question of the quantity of alcohol which should be taken to facilitate digestion, and, consequently, the assimilation of food. He demonstrates, by conclusive experiments, that an excess of alcohol, viz.: 75 grams of brandy to 200 grams of meat, completely arrests digestion; while 25 grams of brandy with the same weight

of meat will, on the contrary, have a very powerful effect on the digestion. The quality of the alcohol used is of no less importance. Dr. Rabuteau, whose chemical researches give authority to his dicta, has studied the comparative action of the different alcohols of commerce with the greatest care. Ethylic or vinous alcohol has always yielded the best results. His numerous experiments show that even an excess of this kind of alcohol does not produce the injurious effects that are brought on by even moderate use of the majority of the alcohols of commerce, and especially of that variety which contains amylic alcohol. According to him, it is this kind which produces the lamentable results of alcoholism.

Diabetes and Sepsis.

Dr. Roser, in *Deutsche Med. Wochenschrift*, January 3, 1880, calls special attention to the occurrence of gangrenous or ulcerative processes in patients suffering from diabetes. As a rule, in cases of gangrene occurring without any definite cause, the tendency is to attribute it to some septic agency. Roser, however, points out that, in these cases, diabetes is often present, and where this is the case, he states that a cure may be obtained by attention to diet, etc., without any special antiseptic measures. In support of this view, he cites a case from his own practice, of progressive gangrenous inflammation of the foot cured by anti-diabetic diet; other cases occurring in his own practice, in that of Küby, Marchal, and others. Reference is also made to cases of sudden death, which often occur in diabetic cases, and which may happen after even slight operations. He confirms Marchal's statement that, "in cases of obstinate furuncular eruption of carbuncle, diffuse phlegmonous inflammation, gangrene, etc., the urine should always be examined for sugar."

Remarkable Case of Precocious Viability.

Prof. Bailly reports, in *Archives de Tocologie*, the remarkable case of a viable infant at the age of six months and twenty days. The mother had a miscarriage at the beginning of 1877, after which menstruation became regular, taking place for the last time from July 3d to 9th, 1877. On January 28th, 1878, she gave birth to a male infant. This was wrapped in wadding and kept in an artificial temperature. It was fed at first with diluted cows' milk, and afterward with its mother's milk, being unable to suck at first. At its birth, the ring of its father passed over its foot to near its knee, and on the thirteenth day the infant weighed 1250 grams (2½ pounds). At the end of a week it began to take the breast. At the date of this report, December, 1879, the child had sixteen teeth, weighed ten kilogrammes, walked with agility, could pronounce some words, and was as intelligent as other children at that age.

The Condition of the Eye during Sleep.

Dr. Plotke, in *Archiv für Psychiatrie*, Band x, says that during sleep the pupil is contracted, and the deeper the sleep the greater the contraction. Light causes the pupil to contract the more, the less deep the sleep is; in the profoundest sleep, light has no effect on the pupil. Sensory and auditory stimuli cause dilatation, which is more marked the lighter the sleep. The pupil dilates to its utmost at the moment of wakening; the dilatation takes place even though a strong light is shone into the eye. The narrowing of the pupil during sleep is due to the tonic contraction of the sphincter; the dilatation is due, probably, to the inhibition, or cessation of the action of the sphincter. There are good reasons to doubt the existence of a special dilator of the pupil. The cornea is dim during sleep, very likely owing to the absence of winking movements; and the eyeballs move, frequently independently of one another, thus occasioning a squint.

Atropine Eczema.

Dr. Julius Donath, of Baja (Hungary), records, in *Wiener Med. Wochenschrift*, No. 12, 1880, a case where the introduction of a few drops of a 1 per cent. solution of sulphate of atropia into the eye was invariably followed by severe eczema and pseudo-erysipelatous swelling and redness of the face and neck. The patient was a woman of forty-five, of good constitution, with chronic disease of the left eye giving rise to corneal opacity and synechiæ.

The Effects of Temperature on Syphilis.

M. Diday remarks, in *Annales de Dermatologie et de Syphilographie*, Jan. 25th, 1880, that he noticed an intensity and a tenacity of syphilis in patients subjected by their occupation to cold and damp. From the end of August, and especially during the months of September and October, 1879, he noticed a special intensity in the character of the disease among his patients. The symptoms were frequently more severe; the various manifestations succeeded each other at shorter intervals than usual; relapse occurred

after a period which is generally the guarantee of a definite cure: and specifics did not act with their accustomed curative effect. Twelve cases are given in illustration of these various points. M. Diday is inclined to attribute the above mentioned peculiarities to the prolonged low temperature of the spring and part of the summer months during 1879.

Hemeralopia.

Dr. Gama Pinto, in *Correio Medico de Lisboa*, January, 1880, considers that in the great majority of cases of this affection the prognosis is very favorable. He excepts only congenital hemeralopia, and an asthenic form which lasts months, or even years. In "crepuscular amblyopia," depending on prolonged excitation of the retina, the author considers it important to protect the eye from strong light; but this indication can be sufficiently fulfilled by the use of a shade or of smoked glasses. Isolation in a dark room, and other severe methods of treatment, as recommended by Netter, are, to say the least, unnecessary. Cod-liver oil, tonics, a generous diet, and subdued light, have afforded the best results in the author's experience. In obstinate cases, he recommends injections of strychnine, together with the continuous current.

CORRESPONDENCE.

A Singular Malformation.

ED. MED. AND SURG. REPORTER:—

I was called on February 27th, 1880, to make a post-mortem on a new-born babe. There was nothing unusual in the labor. There was no indication of anything being wrong with either mother or child until the labor was terminated. The babe was well formed and strong, but it did not breathe, making only a few spasmodic efforts, and all was over with it. The attending physician said he felt for the heart, but could not find it in the normal position; making still further examination, he detected the heart pulsation, with considerable force, in the right axillary space. It pulsated only for a short time and ceased. No efforts to restore its action amounted to anything.

About six hours after birth I was called to make the post-mortem. I found a male child, well developed, good size, would have weighed ten pounds. From inspection there was no apparent reason for death. On opening the chest we found the left thoracic cavity entirely filled with the small intestines, stomach and spleen. The left side of the diaphragm was not developed, there being only a trace of it around the chest walls. The two cavities were thus made one, allowing the intestines, stomach and spleen to occupy the thoracic cavity. The heart was pushed over into the right side, where the doctor had detected its pulsations; it was small, but had been sufficient for fœtal life and development. The lungs were not developed, being pressed into the apices, mere rudimental tufts of lung tissue. No air ever entered them, so that extra-uterine life was not possible. The post-mortem gave entire satisfaction to the friends, and fully explained the cause of death.

Hagerstown, Ind. C. N. BLOUNT, M.D.

Ergot in Ante-partum Hemorrhage from Separation of the Placenta from its Uterine Attachment.

ED. MED. AND SURG. REPORTER:—

Several years ago I reported for the REPORTER a fatal case of ante-partum hemorrhage caused by the separation of the placenta from its uterine attachment. Since then I have had two more cases of ante-partum hemorrhage arising from the same cause, but, unlike the former, both recovered. I attribute their recovery to the complete checking of the hemorrhage by the administration of ergot in sufficiently large doses to produce ergotism and maintain a persistent contraction of the uterus, until the child is expelled. I theorize that the permanent contraction of the uterus constringes the bleeding vessels ruptured by the separation of the placenta. The vessels being thus closed, the hemorrhage ceases and the woman's life is saved. The death of the child is a foregone conclusion, from the very nature of the accident. Nothing less than the Cæsarean section, and that performed very soon after the accident had occurred, would afford the least hope of saving the life of the child. Believing that the above plan of treatment affords the best chance of saving our patient, I submit it to the test of experience by the profession.

H. NYE, M.D.

Enon Valley, Pa., May 13th, 1880.

Simple Treatment for Infantile Intertrigo.

ED. MED. AND SURG. REPORTER:—

Reading in one of your late issues treatment for the above trouble, I venture to place before the readers of the REPORTER my treatment for the past twelve years, which is easy and successful.

I dust the affected parts well with finely powdered red cinchona bark, after washing well and drying, not by rubbing, but by dabbing with a soft towel. If the alvine evacuations are acid or in any way irritating, make use of the necessary means to correct them. The application to be made every time the child is changed, and at no time allow soiled or wet diapers to remain on the parts. The cure is speedy if the mother does her part, and after she once sees the treatment, need never have a severe case in her family if she obtains the brown powder, as they call it. So far I have never had reason to change it for a better remedy. In it we have a tonic and an astringent, which the most of the common remedies do not possess, and its application is so easy that the mother finds little trouble in carry-

ing out the physician's directions, which is not always done in a more routine treatment.

GEO. HENDRY, M.D.

Zilwaukee, Mich., May 14th, 1880.

NEWS AND MISCELLANY.

Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons.

The fifth annual session will be held at the Institution for Feeble Minded Youth (Dr. Geo. Brown's), Barre, Mass., commencing Tuesday, June 8th, 1880, at 3 o'clock, P.M.

The following papers will be presented and discussed:—

1. "On Epilepsy," Dr. Geo. Brown, Barre, Mass.

2. "On the Psycho-physiological education of an idiotic eye," Dr. E. Seguin, New York.

3. "Some false impressions that prevail as to the nature of idiocy," Dr. H. B. Wilbur, Syracuse, N. Y.

By resolutions of previous sessions the following reports will be made at Barre:—

"On Bibliography of Idiocy, etc.," Dr. H. B. Wilbur, chairman (minutes p. 43).

"On Statistical Records," Dr. G. A. Doren, chairman (minutes p. 45).

"On Causation of Idiocy, etc.;" Superintendents reporting illustrations from cases received into Institutions for past year (minutes p. 43).

"On Status of the work before the people and legislatures of the various States" (minutes p. 43).

"On Development and Progress of the Institutions represented."

"Improvements in School Training and Hospital Care introduced during the past year."

"Clinical reports of special cases" (minutes p. 41).

ISAAC N. KERLIN, Secretary.

Media, Pa., May 1st, 1880.

State Hospital for the Insane of the Southeastern District of Pennsylvania.

Applications in writing will be received by the undersigned, until the 25th day of May, 1880, for one male resident Physician, one female resident Physician, one male assistant Physician, and one female assistant Physician, for said Hospital. Applicants for these places will accompany their applications with their reference.

By order of the Board. E. G. MARTIN,

Allentown, Pa. *Sec'y.*

Association of American Medical Editors.

The annual meeting of the Association of American Medical Editors will be held on Monday evening, May 31st, in the parlors of the Fifth Avenue Hotel, New York.

The annual address will be delivered by the President, S. T. Powell, M.D., of Atlanta, Ga.

The question of the advisability of the general adoption of the metric system by the American Medical Press will be brought forward for discussion.

All medical editors are cordially invited to be present, to participate in the meeting.

F. H. DAVIS, M.D.,

Chicago, May 10th, 1880. *Sec'y.*

Stereoscopic Microscopy.

The *Lancet* informs us that at the close of the meeting of the Pathological Society, on Tuesday, April 20th, Dr. Heneage Gibbes gave a very interesting demonstration, showing how it is possible to get with one-twelfth oil immersion a stereoscopic effect with the ordinary binocular microscope, both fields being perfectly illuminated. The interest will be appreciated when it is added that by this means epithelial cells were not seen as flat scales, but as spheres, standing out in all their rotundity, and that the precise relations of cells and fibres, layer by layer, could be thoroughly appreciated. This, of course, gives a much more accurate impression of the structure under examination than can be obtained by the ordinary method of examination. The specimen used for the demonstration was also of considerable interest, as it well and clearly showed dividing epithelium in the skin of the embryo salamander.

A Poor Widow's Picture and the Doctor.

The *Med. Times and Gazette*, April 17th, 1880, relates the following:—

A poor Hungarian widow, living in a garret at Limehouse with her deaf and dumb son, was overtaken by hard times and fell ill. Some kind people went to her aid. They found the room wretchedly furnished, but covered all over with colored prints and engravings. Looking over these, a hundred pound note was discovered pasted between a cut from the *Illustrated London News* and a business card. The discoverers doubted their eyes, and the doctor, who had been sent for, coming in at the time, was made aware of the circumstance. An attempt to detach the engraving from the wainscot failed; and, by direction of the medical man, the piece of panel was cut out, taken to the Bank of England, and cashed, when the doctor explained that the proceeds would be lodged to the credit of the old lady. It seems that she had picked up the note two years ago, and seeing in it only a picture, fixed it on the wall of her room, where it remained an unsuspected treasure.

Sudden Death of Physicians.

Dr. Hugh Williamson, of No. 217 East Forty-seventh street, New York, while on a professional visit, was suddenly stricken with paralysis, and died soon after.

Dr. Chesley Martin, a leading physician, died suddenly at Chatham, Va., on the 8th instant, of paralysis.

—The Ninety-first Annual Session of the Delaware State Medical Society will be held at Dover, 12 M., June 8th. Orders for reduced rates of fare may be had upon application to the Secretary.

G. W. MARSHALL, *Secretary.*

Milford, Del., May 15, 1880.

Consumption of Quinine.

The *Presse Med. Belge* says that, according to a statistical calculation of the amount of quinine consumed in the universe, it appears that 100,000 kilogrammes of the sulphate, valued at 56,000,000 fr., are consumed annually. If we add the value of the other salts—as the chlorhydrate, bromhydrate, etc.,—which may be put at about 2,000,000 fr., we have a total of 58,000,000 fr., expended for this one drug annually.

OBITUARY NOTICES.

—Dr. Samuel Choppin, of New Orleans, died on the 2d inst., of pneumonia, after three days' illness. He was born in West Baton Rouge, La., October 20th, 1828, and graduated from the Medical Department of the University of Louisiana in April, 1850. He spent the ensuing four years in England, France, and Italy, continuing his medical studies. Returning to America he established himself as a surgeon in New Orleans in 1854. He was elected President of the Louisiana State Board of Health the following year, and from that time to 1867 was Professor of Surgery in the New Orleans School of Medicine. Up to 1858 he was also House Surgeon to the Charity Hospital. During the late war he rose to the highest medical position in the Confederate Army, that of Medical Inspector-General, beginning in 1861 as a commissioned surgeon, being promoted to be a Medical Director for the next year, and to the higher office in 1863. He filled this office until the close of the war. After the war, and when the Government of the State was restored to the people, Dr. Choppin became President of the Board of Health of the State. He was also a member of the Public Health Association, having been elected in 1874. Since that year he has been Professor of Clinical Surgery in the Charity Hospital Medical College. Dr. Choppin was a well-known medical writer for professional publications, especially for the New Orleans *Medical News* and *Hospital Gazette*. Of this periodical he was the editor from 1854 to 1857. In 1853–4, Dr. Choppin published a work entitled "Notes on Syphilis," being a translation of lectures by Ricord. Among other noteworthy literary productions written by Dr. Choppin are papers upon "Ligation of Brachial Artery," and "Removal of Uterus and Ovary." During the yellow fever epidemics of 1878 and 1879 Dr. Choppin took a very prominent part in the work of caring for the victims of the scourge, rendering most excellent service, and earning the gratitude of all citizens. Dr. Choppin was twice married. His first wife, to whom he was married in October, 1857, was a daughter of Daniel Roberts, of Guernsey, England. He married his second wife, a daughter of Dr. James Metcalf, of Mississippi, in 1862.

QUERIES AND REPLIES.

Dr. M. P., of Michigan.—We have no personal knowledge on the subject, and would refer you to the Army Medical Department for information.

Dr. J. E. A., of Ill.—Authorities will always differ on such questions, and the only true and safe guide is to closely watch the effect produced by small and frequent doses, gradually increased, if necessary, until the desired effect has been obtained.

Dr. J. W. Compton, of Ind., in reply to query of Dr. L. G. A., of Ky., in our issue of May 8th, suggests the daily application of tinct. ferri. chlor., by means of a camel's hair pencil. If the warts be branching, they should be separated, so that the remedy may be applied to every part thereof. He says that it has been a never-failing remedy with him during a practice of twenty years. He thinks this is due to its astringency, whereby the constant discharge of an irritating fluid which coming in contact with healthy skin produces new warts, is arrested.

Dr. S. T. Armstrong, of Wabashaw, Minn., suggests cutting the warts and powdering their cut surfaces with calomel. If this should fail, he recommends their entire removal, together with part of the surrounding healthy tissue, with a pair of scissors, after which a single application of chromic acid should be made to the raw surface. Keeping the parts clean will afterward prevent their reappearance.

Dr. G. E. M., of Boston, Mass.—Gun cotton is soluble in a mixture of one part, by fluid measure, of alcohol to three parts of sulphuric ether. There should, as far as we know, be no precipitation, unless water or glycerine be added. A chemist would, however, perhaps be able to give you more definite information.

MARRIAGES.

ALLEN—KLOTS.—At Bergen Point, N. J., Thursday, May 6th, 1880, by the Rev. Dr. G. H. Walsh, Mrs. A. Twybill Klots and Dr. C. D. Allen.

FURMAN—MARTIN.—In New York, on Wednesday, April 28, at Fourth Avenue Presbyterian Church, by Howard Crosby, D.D., Guido Furman, M.D., and Adaline E. Martin.

LEE—PORTMESS.—At the residence of the bride's mother, in Flora, Ill., on the 28th of April, by Rev. A. McFarland, Dr. Thomas L. Lee and Miss Ella L. Portmess, both of that place.

MACK—HOUGH.—On Wednesday, May 5th, 1880, at the residence of the bride's father, Dr. T. C. Hough, by the Rev. H. W. Jones of Philadelphia, W. A. M. Mack, M.D., and Miss Ida W. Hough, all of Elizabeth, New Jersey.

SHAND—TRACY.—On Saturday, April 10th, at the British Legation, Berne, Switzerland, Henry Miller Shand, M.D., of Aberdeenshire, Scotland, and Mary Greenleaf, youngest daughter of the late Frederick Tracy, of New York.

SHERBURNE—HASKELL.—On April 20th, 1880, by the Rev. Dr. Rumney, of St. Peter's Episcopal Church, Germantown, Samuel Sherburne, M.D., of this city, and Miss Ida L. Haskell, of Blandford, Mass.

SKINNER—CLARK.—On May 6th, at the Presbyterian Church, Glasgow, Del., by Rev. J. L. Polk, Dr. N. S. Skinner and Miss Annie S. Clark, all of New Castle County, Del.

DEATHS.

ADAMS.—In this city, on the 11th inst., Dr. George W. J. Adams, aged sixty-nine years.

BEEKEN.—On the 12th of April, Dr. Carl Beeken, at Steinrade, near Rendsburg, aged 61 years.

BURRIDGE.—In New York, on the 14th inst., Emma Frances, only daughter of Dr. L. S. and E. F. Burridge.

JOHNSON.—At Ansonia, Conn., on the 4th inst., Dr. William Johnson, son of Lydia and the late William Johnson, aged 31 years.

WEBB.—Dr. Joseph T. Webb, at Minneapolis, Minn., on Tuesday, April 27th.